أنموذج (أ) الخاص برسائل الماجستير و اطاريح الدكتوراة (اخر شهادة)

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Thesis Title	The change in the level of some enzymes and mineral elements with study aerobic bacterial contamination in the breast cancer patients.			
Year	2002			
Abstract	The study was carried on patients in breast cancer and the samples were collected from the hospitals: Al- Kadhimiyyah Teaching, Baghdad Teaching, Al- Jarrah Private and The Radiation and Atomic Medicine from October 2000 to September 2001, where information about patients was collected. The study falls in three stages: 1- Collecting blood samples from (218) breast cancer patients divided into three groups: (134) patients under chemotherapy, (32) patients under radiotherapy and (52) patients without any medicament, with (30) samples from healthy women as control. The women population age was between (20) years old and over (70) years old. 2- Collecting (25) samples of breast. cancered breast tissue from the same hospitals, mentioned above, taking into consideration the necessary sterilizing conditions. 3- Collecting swabs from the wounds of cancered breast operation from patients suffering from contamination in the operation wound, and swabs from the operation instruments before and after the surgical operation. Traditional biochemical tests were conducted to diagnose isolated types of bacteria and use [api- 20 E] system for diagnosis, in accordance with the instructions of the manufacturing company. Certain types of aerobic gram- negative bacteria were isolated from the breast tissue, from the contamination of surgical operation wounds and from the surgical instruments after the performance of the surgical operation. The percentages *of* isolated bacteria from breast tissue as follows: *Pseudomonas aeruginosa* (12. 8 %) and *Serratia marcescens* (4.2 *%).* The isolation percentage from the contamination of surgical operation wounds for *P. aeruginosa* was (8.6 %) and for *Serratia marcescens* (2.1 %), whereas the percentages of their isolation from surgical instruments were (10.6%) for the first and (4.2%) for the second. As for *Chrysomonas luteola* and *Enterobacter cloaca,* they were isolated from the infection of surgical operation wounds only and their-percentages were (4.2%) and (2.1 %) respectively. *Staphylococcus* bacteria in its two species were isolated as well from cancered breast tissue and the percentages were (6.4 %) for *Staph. aureus* and (8.6 %) for *Staph. epidermidis.* The percentages of their isolation from the contamination of surgical operation wounds were (4.2 %) for *Staph. aurirs* and (12.8 %) for *Staph. epidermidis.* As for isolation from surgical instruments, it was (6.4 *%)* for the first and (12.8 %) for the second. The sensitivity test on isolated bacteria against (13) antibiotics showed that bacteria displayed different percentages of resistance toward these antibiotics. All types of isolated bacteria resisted the antibiotic Rifampicin at the percentage of (12.5%); whereas the percentage of resistance of isolated bacteria against some antibiotics was the same, such as the resistance against Tetracyclin and Nalidixic acid, the percentage was (25 %) for each one, against Cephalothin			

and Streptomycin the percentage was (29.2 %)for each one, against Norfloxacin and Kanamycin the percentage was (33.4 %) for each of them, and against Chloramphinicol and Carbencillin the percentage was (37.5 %) for each of them. The percentage of resistance different against Ampicillin and Amoxicillin which was (41. 7%) and (54. 2 %) for each of them respectively; whereas all isolations resisted the antibiotic Cloxacillin at the percentage of (100 %).

The study showed that the antibiotic Ciprofloxacin was of higher activity in its effect on the isolated bacteria which sensed it at the percentage of (100 %).

Chemical tests conducted on the serum of breast cancer patients implying the concentration measurement of mineral elements (Sodium, Potassium, Calicium and Phosphorus), Total protein, Cholestrol and activity *of* Alkaline phosphatase enzyme and Lactate dehydrogenase enzyme in before treatment and after chemotherapy and radiation therapy.

The statistical analysis revealed the following results:

< There was an insignificant decrease of the level (0.05) in the mean of **sodium** concentration at the stage before treatment when it was (139.0) mEq/l compared with the control mean which was (142.2) mEq/l with insignificant increase in the mean of sodium concentration after chemotherapy, which was (144.3) mEq/1 and after radiation therapy which was (145.0)mEq/l compared with the mean of the stage before treatment.

< There was an insignificant decrease of the level (0.05) in the mean of **potassium** Concentration at the stage before treatment which was (4.1)mEq/l compared with the mean of the control group which was (4.3)mEq/l with a significant increase after chemotherapy and radiation therapy when the concentrations were (4.6) mEq/1 after chemotherapy and (4.7) mEq/l after radiation therapy compared with the stage before treatment.

< There was a significant increase of the level (0.05) in the mean of **calcium** concentration at the stage before treatment when it was (10.3) mg/100 ml compared with the mean of the control group which was (9)mg/100ml. There was a significant decrease in the concentrations after chemotherapy and radiation therapy when the mean was (9.5)mg/100ml and after chemotherapy and (9.4)mg/100ml after radiation therapy compared with the concentration of the stage before treatment. In addition, there was a significant increase in the ion concentration after treatment which was (9.45)mg/100ml compared with the control group.

< There was a significant decrease of the level (0.05) in the mean of **phosphorus** concentration at the stage before treatment which was (2.7)mg/ 100ml compared with the concentration of the control group which was (3.5)mg/100ml with a significant increase in the concentrations after chemotherapy and radiation therapy when the mean of the first was (3.9) mg/ 100 ml and the second (4.0)mg/100 ml compared with the stage before treatment. In addition, the ion concentration mean increase significantly after treatment to (3.9)mg/100 ml compared with the control group.

< There was a significant increase of the level (0.05) in the **total protein** concentration in the stage before treatment which was (8.8)g/dl compared with the concentration of the control group which was (7.6)g/dl while chemotherapy and radiation therapy caused a significant decrease in the concentration means of protein which was (8.2)g/dl after chemotherapy and (8.1)g/dl after radiation therapy compared with the stage before treatment despite the decrease, the mean of the stage after treatment was increase significantly compared with the control group.

< There was an insignificant increase of the level (0.05) in the **cholesterol** concentration in the stage before treatment which was (240. l)mg/ 100ml compared with the concentration of the control group which was (219.3)mg/100ml, and a significant increase appeared only in those women aged over (50) years, where as the treatment caused an insignificant decrease in the concentrations means which was (232.4)mg/l 00ml after chemotherapy and (230.5)mg/ 100ml after radiation therapy. As for cholesterol, its mean of concentration remained insignificantly high despite its decrease after treatment which was (231.5) mg/ 100 ml. The effect of treatment was apparent after the age of (60) which caused a significant decrease in the concentration compared with the stage before treatment.

< There was a significant increase of the level (0.05) in the mean of activity of **alkaline phosphates** enzyme at the stage before treatment whose mean was (13.5)U/100ml compared with the mean of the control group which was (6.6)U/100 ml, as its mean has increased insignificantly to reach (17.8)U/100ml after chemotherapy and (18.5)U/100ml

	after radiation therapy compared with the stage before treatment. The result of treatment was a significant increase in the activity of the enzyme to (18.1)U/100ml compared with the control group. < There was a significant increase of the level (0.05) in the mean of activity of **lactate dehydrogenase** enzyme at the stage before treatment which was (230.3)U/1 compared with the mean of control group which was (132.6)U/l. The enzyme activity decreased insignificantly to (187.9)U/l after chemotherapy and (194.2)U/l after radiation therapy. It was observe that as a result of continual treatment the mean of the enzyme increased after radiation therapy compared with the mean after chemotherapy. And the result of treatment was a significant increase in the activity of enzyme to (190.1)U/l compared with the control group.